CLAIMS:

1. An antireflection film to be formed on at least one surface of a substrate, comprising

a high refractive index layer formed of a first coating composition in the cured state primarily comprising (A) metal oxide fine particles comprising at least one oxide selected from the group consisting of titanium oxide, aluminum oxide, zirconium oxide, cerium oxide, iron oxide, tin oxide, and compound oxides thereof, and having an average particle size of 1 to 500 nm, and (B) a compound having in a molecule at least one group of at least one type selected from the class consisting of an acrylic, methacrylic, vinyl and styryl group, and/or (C) a compound having in a molecule at least two groups of at least one type selected from the class consisting of an epoxy and oxetane group, and

a low refractive index layer formed of a second coating composition in the cured state primarily comprising (D) silica-base inorganic oxide fine particles having void in the interior and having an average particle size of 1 to 500 nm, and (B) a compound having in a molecule at least one group of at least one type selected from the class consisting of an acrylic, methacrylic, vinyl and styryl group, and/or (C) a compound having in a molecule at least two groups of at least one type selected from the class consisting of an epoxy and oxetane group,

said high refractive index layer and said low refractive index layer being successively stacked.

2. The antireflection film of claim 1, comprising

a high refractive index layer formed of a first coating composition in the cured state primarily comprising (A) metal oxide fine particles comprising at least one oxide selected from the group consisting of titanium oxide, aluminum oxide, zirconium oxide, cerium oxide, iron oxide, tin oxide, and compound oxides thereof, and having an average particle size of 1 to 500 nm, and (B) a compound having in a

molecule at least one group of at least one type selected from the class consisting of an acrylic, methacrylic, vinyl and styryl group, and

a low refractive index layer formed of a second coating composition in the cured state primarily comprising (D) silica-base inorganic oxide fine particles having void in the interior and having an average particle size of 1 to 500 nm, and (C) a compound having in a molecule at least two groups of at least one type selected from the class consisting of an epoxy and oxetane group,

said high refractive index layer and said low refractive index layer being successively stacked.

3. The antireflection film of claim 1 wherein component (B) is a compound having at least two acrylic groups in a molecule.

4. The antireflection film of claim 1 wherein component (B) is a compound having at least two acrylic groups and a benzene ring in a molecule.

5. The antireflection film of claim 1 wherein component (C) is a compound having at least two 3,4-epoxycyclohexyl groups in a molecule.

6. The antireflection film of claim 1 wherein component (C) is a silicone compound containing at least two $-R^1CH_3SiO-$ units (wherein R^1 is a substituent group having a 3,4-epoxycyclohexyl group), having a molecular weight of 500 to 2,100 and an epoxy equivalent of 180 to 270, and being free of an alkoxy group.

7. The antireflection film of claim 1 wherein each of the first and second coating compositions further contains (E) a radical initiator and/or (G) a photoacid generator.

8. The antireflection film of claim 7 wherein the photoacid generator (G) has the formula: $R^4{}_2I^+X^-$ wherein R^4 is $-C_6H_4-R^5$, R^5 is an alkyl group having at least 6 carbon atoms, X^- is SbF_6^-, AsF_6^-, PF_6^-, BF_4^-, HSO_4^-, ClO_4^-, Cl^- or $CF_3SO_3^-$.

9. The antireflection film of claim 1 wherein the first and second coating compositions have been cured by irradiating them with actinic energy radiation.

10. An antireflection film-bearing article having the antireflection film of claim 1 formed on at least one surface of a substrate.

11. A method for preparing an antireflection film-bearing article, comprising the steps of:

applying a first coating composition as set forth in claim 1 further containing (E) a radical initiator and optionally (F) a solvent onto at least one surface of a substrate,

irradiating the coating with actinic energy radiation to form a first cured film,

applying a second coating composition as set forth in claim 1 further containing (G) a photoacid generator and optionally (H) a solvent onto the first cured film, and

irradiating the coating with actinic energy radiation to form a second cured film.

12. A method for preparing an antireflection film-bearing article, comprising the steps of:

applying a second coating composition as set forth in claim 1 further containing (G) a photoacid generator and optionally (H) a solvent onto one surface of a temporary substrate optionally having a strippable layer formed thereon,

irradiating the coating with actinic energy radiation to form a second cured film,

applying a first coating composition as set forth in claim 1 further containing (E) a radical initiator and optionally (F) a solvent onto the second cured film,

irradiating the coating with actinic energy radiation to form a first cured film,

attaching the resulting laminate to a substrate using an adhesive or pressure-sensitive adhesive, and

stripping the temporary substrate.

13. A laminate for forming an antireflection film-bearing article, which is prepared by

applying a second coating composition as set forth in claim 1 further containing (G) a photoacid generator and optionally (H) a solvent onto one surface of a temporary substrate optionally having a strippable layer formed thereon,

irradiating the coating with actinic energy radiation to form a second cured film,

applying a first coating composition as set forth in claim 1 further containing (E) a radical initiator and optionally (F) a solvent onto the second cured film,

irradiating the coating with actinic energy radiation to form a first cured film, and

forming an adhesive or pressure-sensitive adhesive layer on the first cured film for allowing the film to be subsequently attached to a substrate.